

REMARKS/ARGUMENTS

Applicant has had an opportunity to carefully consider the Examiner's Office Action of January 10, 2006 and believe that this amendment is fully responsive to every point raised by the Examiner. Reconsideration of the application, as amended, is respectfully requested.

Claims 1-10 remain in this application. Claims 1 and 6 have been amended. Support for these claim amendments may be found, for example, in paragraphs 22 and 23 of the specification.

Claims 1, 3-6, and 8-10 stand rejected under Section 103(a) as being unpatentable over Niemela in view of Raetz and Spreizer. Claims 2 and 7 stand rejected under Section 103(a) as being unpatentable over Niemela, Raetz and Spreizer in view of Hurtta. Applicant submits, however, that the claims, as amended, are patentably distinguishable from the references cited in the Office Action.

Claims 1 and 6 relate to a method and system, respectively, for receiving and transmitting signals in a cellular radio network. As amended, both claims include the feature of "receiving a plurality of radio signals on a plurality of channels using a single radio receiver at said base station." The point of this feature is to reduce the number of receivers needed at the base station and thus reduce the cost to the service provider. Niemela fails to teach such a feature. The primary reference, Niemela, relates generally to a method of allocating Abis interface transmission channels in a packet cellular radio network (GPRS) and to a network part utilizing the method. However, as explained in paragraph 28, Niemela specifically discloses multiple channels used by a plurality of transceivers 114 that are multiplexed. As described in paragraph 33, each transceiver 114 includes a corresponding receiver 200. Thus, there is no attempt in Niemela to reduce the number of receivers at the base station. This is in contrast with the present invention, which reduces the amount of receivers needed at the base station to one.

Further, claims 1 and 6, as amended, include "reading, processing and time-multiplexing said buffered signals with a second processor, wherein the speed of said first and second processors is faster than the multiplication of the number of channels and the channel bandwidths." There is no mention of the speed of the processors utilized by Niemela.

Further still, amended claims 1 and 6 both include the feature of "transmitting said time-multiplexed radio signal via a single physical link to a mobile switching center." However, Niemela calls for multiple transmission channels, as set forth in paragraph 63:

The first transmission channel for transferring packet data is called a master channel, and it comprises information on the number and location of other transmission channels used for transferring packet data, i.e. slave channels. The master channel is allocated by using signalling in the transmission channel reserved for telecommunication signalling, i.e. the signalling is out-band signalling.

As further explained in paragraph 64 of Niemela:

The allocation of transmission channels in the disclosed manner may be carried out by applying two principles. According to the first principle, all transmission channels for transferring packet data are allocated entirely dynamically according to the transfer need. According to the second principle, at least one transmission channel is continuously kept allocated to each channel codec unit allocated to Um interface packet data transfer. Many of the Um interface connections may thus alternately and time-divisionally use one channel codec unit of the radio interface. The advantage of the first principle is that the temporary Abis interface capacity can be utilized to the full. The advantage of the second principle is that the slow out-band signalling becomes unnecessary when the first transmission channel is to be allocated to be used by the connection.

This approach is in contrast to the present invention wherein only a single transmission channel from the base station is needed.

Claims 1 and 6, as amended, also include the feature of "demultiplexing said time-multiplexed radio signal into independent radio signals corresponding to said incoming signals at *said mobile switching center* and processing said independent radio signals." (Emphasis added.) However, as explained in paragraph 34, for example, Niemela specifically discloses that any demultiplexing is to occur at the base station 100. This is in contrast with the present invention, wherein the demultiplexing occurs at the mobile switching center.

Additionally, as noted by the Examiner, Niemela does not teach "continuously scanning said incoming signals and saving said signals to a buffer with a first processor." However, the additional cited reference, Raetz, does not teach or suggest this feature either. Raetz relates generally to a system and operational methods for distributing jitter buffers among two or more subsystems of a system on a chip "SOC." More particularly, paragraph 0040 discloses a bus arbiter 606 being employed to arbitrate access to bus 604. The bus arbiter 606 apparently determines which of the contending transactions on whose behalf the DTU608a-608d are requesting for access are to be granted access to bus 604. However, there is no mention of continuously scanning incoming signals on multiple channels and saving them to a buffer with a first

processor, as provided in claims 1 and 6.

The Examiner has also asserted that it would have been obvious to combine certain aspects of Raetz, and Spreizer with Niemela to produce the claimed invention. However, the Examiner has provided no reference, or other evidence, to support the conclusion that it would be obvious to one skilled in the art to modify the system of Niemela with the teachings of Raetz and Spreizer, aside from conclusory statements such as "it would have been obvious . . . to provide the teaching of Raetz and Spreizer into the system of Niemela in order to store a set of raw digital receiver data as Raetz suggest on paragraph 0040." Applicant asserts that the Examiner has impermissibly concluded that the claims are obvious in view of a combination of Niemela, Raetz and Spreizer without any legitimate support on the record and respectfully requests, in accordance with the obligations imposed under MPEP §2144.03 (should a rejection of amended claims 1 and 6 be maintained), that the Examiner provide a reference or other suitable evidence showing that one skilled in the art would be motivated to modify the teachings of Niemela with the teachings of Raetz and Spreizer.

As the Examiner is aware, a *prima facie* case of obviousness is not established absent proper motivation. Simply because certain teachings of Raetz and Spreizer could be used in other systems, a motivation to modify Niemela to meet the limitations of claims 1 and 6, as amended, is not formed. Moreover, according to MPEP §2144.01, the "fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness." Merely because the claimed elements are individually found in the prior art, it does not necessarily follow that it would be obvious to combine the elements from different prior art references. See MPEP §2141.01, citing *Ex Parte Levingood*, 28 USPQ2d 1300 (Bd. of Pat. App. and Int. 1993).

Consequently, absent a motivation to combine and modify Niemela with certain teachings of Raetz and Spreizer, it is irrelevant that the elements and/or limitations may be individually or separately known in the prior art. Clearly, the Examiner is motivated to combine these teachings for no other reason than to arrive at the claimed invention. This is a classic example of impermissible hindsight. Accordingly, claims 1 and 6, as amended, are further patentably distinct over the references of record for the reasons discussed herein.

Accordingly, it is submitted that claim 1 and claims 2-5, which depend therefrom, and claim 6 and claims 7-10, which depend therefrom, are allowable over the cited art.

Additionally, claims 2 and 7 are separately patentable in that they specify that the cellular radio network comprises a Frequency Division Multiple Access network. The Examiner has taken official notice that FDMA networks are known. The claimed methods and system when incorporated into an FDMA network are not generally known in the field. As noted in the MPEP, "there must be some form of evidence in the records it should support an assertion of common knowledge." MPEP §2144.03(B). Applicant hereby challenges the assertions made by the Examiner and requests the explicit basis upon which the Examiner regards the matter as subject to official notice. That is, the Examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge. If the Examiner is relying on personal knowledge to support the finding of what is known in the art, the Examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See MPEP §2144.03(C), 37 CFR 1.104(d)(2). Applicant also notes that while Hurtta discloses an FDMA network, there is no motivation to combine Hurtta with the other cited references, as alleged by the Examiner.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1-10) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to telephone John Zanghi, at (216) 861-5582.

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & McKEE, LLP

4/10/06
Date

John S. Zanghi
John S. Zanghi
Reg. No. 48,843
1100 Superior Avenue
Seventh Floor
Cleveland, Ohio 44114-2579
216-861-5582

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